

detection of an intervention-needed activity by the processing unit 78b, an intervention-needed control signal is generated. Upon generation of an intervention-needed control signal, the signal transmitter 86a generates an RF personnel-request signal which is received by the pagers 90. The personnel-request signal includes a specific alphanumeric message that includes such information as the nature of the intervention that is needed and the identity of the particular checkout system 10 that requires assistance. For example, if one of the currency dispensers 48, 52 needs to be restocked, the signal transmitter 86a generates an RF personnel-request signal which causes a message to be displayed on one of the pagers 90 which informs the customer service manager wearing the pager 90 that a particular checkout system 10 is, for example, running low on dimes.

Moreover, as shown in FIG. 22 and discussed above, the signal transmitter 86a may communicate with the signal receiver 92a associated with the intercom device 92 in order to generate audible messages which are broadcast to retail personnel within the store with the speakers 92b. In particular, upon detection of an intervention-needed activity by the processing unit 78b, an intervention-needed control signal is generated. Generation of an intervention-needed control signal causes the signal transmitter 86a to generate an RF personnel-request signal which is received by the signal receiver 92a associated with the intercom device 92. The personnel-request signal includes a specific code which corresponds to a number of specific, prerecorded audible messages stored in, or otherwise maintained by, the controller 92c of the intercom device 92. For example, each of the prerecorded messages may include such information as the nature of the intervention which is needed and the identity of the particular checkout system 10 which requires assistance. The controller 92c causes such prerecorded audible messages to be broadcast with the speakers 92b so as to be audibly detected by retail personnel such as a customer service manager within the retailer's store. For example, if one of the currency dispensers 48, 52 needs to be restocked, the signal transmitter 86a generates an RF personnel-request signal which, once received by the signal receiver 92a, causes an audible message to be broadcast on the speakers 92b which informs the customer service manager that a particular checkout system 10 is, for example, running low on dimes.

Additionally, during operation of the checkout system 10 in its self-service mode of operation, the display monitor 78a of the interactive customer interface may be utilized to display certain information to the customer while the customer is entering his or her items for purchase. For example, a customer-specific message such as a customer-specific advertisement which advertises a product that was purchased by the customer during a previous visit to the retailer's store may be displayed on the first portion 272 of the display monitor 78a, as shown in FIG. 21, while transaction information such as item description and price is displayed on the second portion 274 of the display monitor 78a. In particular, during a self-service checkout transaction, the processing unit 78b retrieves information from a customer profile database which contains customer-specific information (e.g. previous purchases) about each of the retailer's customers. Hence, as shown in FIG. 21, if the customer routinely purchases "ACME BEER", an advertisement for "ACME BEER" may be displayed on the first portion 272 of the display monitor 78a while the customer is entering the his or her items for purchase.

Moreover, such a customer-specific message may include a customer-specific advertisement which advertises a prod-

uct which may be used in conjunction with a product which was previously scanned or otherwise entered into the checkout system 10 during the current checkout transaction. For example, if the customer scans a case of beer, an advertisement relating to pretzels may be displayed to the customer on the first portion 272 of the display monitor 78b since pretzels are commonly consumed with beer.

As described above in detail, the checkout system 10 of the present invention provides numerous advantages over heretofore designed checkout systems. For example, the checkout system 10 provides a low-cost, easy-to-operate checkout system that may be operated as either an assisted checkout system or a self-service checkout system. Moreover, the checkout system 10 of the present invention provides a checkout system that may be operated as either an assisted checkout system or a self-service checkout system that can be quickly and easily converted between the two types of systems. Yet further, the checkout system 10 of the present invention provides a checkout system that can be imported into numerous foreign countries with minimal effort during the importation process in regard to compliance of local electrical standards. In addition, the checkout system 10 of the present invention provides a checkout system has enhanced data and power cable routing management relative to heretofore designed checkout systems. Moreover, the checkout system 10 of the present invention provides a checkout system which may be constructed of "off the shelf", industry-standard retail peripheral devices thereby substantially eliminating costs associated with development of proprietary data transmission and power architectures.

While the invention has been illustrated and described in detail in the drawings and foregoing description, such an illustration and description is to be considered as exemplary and not restrictive in character, it being understood that only the preferred embodiment has been shown and described and that all changes and modifications that come within the spirit of the invention are desired to be protected.

There are a plurality of advantages of the present invention arising from the various features of the checkout system described herein. It will be noted that alternative embodiments of the checkout system of the present invention may not include all of the features described yet still benefit from at least some of the advantages of such features. Those of ordinary skill in the art may readily devise their own implementations of a checkout system that incorporate one or more of the features of the present invention and fall within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A method of operating a retail terminal having a display monitor, comprising the steps of:

generating an item-entered control signal when an item for purchase is entered into said retail terminal;

displaying item information associated with said item for purchase on a first portion of said display monitor in response to generation of said item-entered control signal; and

displaying a customer-specific retail message on a second portion of said display monitor, wherein said step of displaying said customer-specific retail message is performed contemporaneously with said step of displaying said item information associated with said item for purchase.

2. The method of claim 1, wherein said step of displaying said customer-specific retail message includes the step of displaying said customer-specific retail message on said

second portion of said display monitor based on identity of said item for purchase.

3. The method of claim 2, wherein said step of displaying said customer-specific retail message further includes the step of displaying a customer-specific advertisement on said second portion of said display monitor based on identity of said item for purchase.

4. The method of claim 1, wherein said step of displaying said item information associated with said item for purchase on said first portion of said display monitor includes the step of displaying a price associated with said item for purchase on said first portion of said display monitor.

5. The method of claim 1, wherein:

said step of generating said item-entered control signal when said item for purchase is entered into said retail terminal includes the step of generating said item-entered control signal when said item for purchase is entered into said retail terminal by retail personnel, and said step of displaying said customer-specific retail message on said second portion of said display monitor includes the step of displaying said customer-specific retail message to a customer on said second portion of said display monitor.

6. The method of claim 1, wherein:

said step of generating said item-entered control signal when said item for purchase is entered into said retail terminal includes the step of generating said item-entered control signal when said item for purchase is entered into said retail terminal by retail personnel, and said step of displaying said customer-specific retail message on said second portion of said display monitor includes the step of displaying said customer-specific retail message to said retail personnel on said second portion of said display monitor.

7. A retail terminal, comprising:

a display monitor;

a processing unit electrically coupled to said display monitor; and

a memory device electrically coupled to said processing unit, wherein said memory device has stored therein a plurality of instructions which, when executed by said processing unit, causes said processing unit to:

(a) generate an item-entered control signal when an item for purchase is entered into said retail terminal, (b) display item information associated with said item for purchase on a first portion of said display monitor in response to generation of said item-entered control signal, and

(c) display a customer-specific retail message on a second portion of said display monitor contemporaneously with display of said item information associated with said item for purchase on said first portion of said display monitor.

8. The retail terminal of claim 7, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to display said customer-specific retail message on said second portion of said display monitor based on identity of said item for purchase.

9. The retail terminal of claim 8, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to display a customer-specific advertisement on said second portion of said display monitor based on identity of said item for purchase.

10. The retail terminal of claim 7, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to display a price asso-

ciated with said item for purchase on said first portion of said display monitor.

11. The retail terminal of claim 7, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to:

(a) generate said item-entered control signal when said item for purchase is entered into said retail terminal by retail personnel, and

(b) display said customer-specific retail message to said customer on said second portion of said display monitor.

12. The retail terminal of claim 7, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to:

(a) generate said item-entered control signal when said item for purchase is entered into said retail terminal by retail personnel, and

(b) display said customer-specific retail message to said retail personnel on said second portion of said display monitor.

13. A method of operating a retail terminal having a display monitor, comprising the steps of:

generating an item-entered control signal when an item for purchase of a customer is entered into said retail terminal by retail personnel;

retrieving retail history information associated with said customer from a customer profile database;

displaying item information associated with said item for purchase on a first portion of said display monitor in response to generation of said item-entered control signal; and

displaying a customer-specific retail message based on said retail history information on a second portion of said display monitor, wherein said step of displaying said customer-specific retail message is performed contemporaneously with said step of displaying said item information associated with said item for purchase.

14. The method of claim 13, wherein said step of displaying said customer-specific retail message further includes the step of displaying a customer-specific advertisement on said second portion of said display monitor based on said retail information associated with the said customer.

15. The method of claim 13, wherein said step of displaying said item information associated with said item for purchase on said first portion of said display monitor includes the step of displaying a price associated with said item for purchase on said first portion of said display monitor.

16. The method of claim 13, wherein said step of displaying said customer-specific retail message on said second portion of said display monitor includes the step of displaying said customer-specific retail message to said customer on said second portion of said display monitor.

17. The method of claim 13, wherein said step of displaying said customer-specific retail message on said second portion of said display monitor includes the step of displaying said customer-specific retail message to said retail personnel on said second portion of said display monitor.

18. The method of claim 13, further comprising the step of reading a customer identity code from a customer card of said customer, wherein said retrieving step includes the step of retrieving said retail history information associated with said customer from said customer profile database based on said customer identity code.

19. A method of operating a retail terminal, comprising the steps of:

operating said retail terminal by retail personnel while said retail terminal is configured in an assisted mode of operation;

generating an item-entered control signal when an item for purchase is entered into said retail terminal;

displaying item information associated with said item for purchase on a first portion of a display monitor during said operating step in response to generation of said item-entered control signal; and

displaying a customer-specific retail message on a second portion of said display monitor during said operating step, wherein said step of displaying said customer-specific retail message is performed contemporaneously with said step of displaying said item information associated with said item for purchase.

20. The method of claim 19, wherein said retail terminal is configured to be convertible between an assisted mode of operation and a self-service mode of operation.

21. A method of operating an assisted retail terminal, comprising the steps of:

generating an item-entered control signal when an item for purchase is entered into said retail terminal;

displaying item information associated with said item for purchase on a first portion of a display monitor while

said retail terminal is configured to be in an assisted mode of operation in response to generation of said item-entered control signal; and

displaying a customer-specific retail message on a second portion of said display monitor while said retail terminal is configured to be in an assisted mode of operation, wherein said step of displaying said customer-specific retail message is performed contemporaneously with said step of displaying said item information associated with said item for purchase.

22. The method of claim 21, wherein said retail terminal is configured to be convertible between an assisted mode of operation and a self-service mode of operation.

23. The method of claim 1, wherein said item for purchase is entered into said retail terminal in response to a scanner reading a product identification code associated with said item for purchase.

24. The retail terminal of claim 7, wherein said item for purchase is entered into said retail terminal in response to a scanner reading a product identification code associated with said item for purchase.

25. The method of claim 13, wherein said item for purchase is entered into said retail terminal in response to a scanner reading a product identification code associated with said item for purchase.

* * * * *